

OIIPE

(2)

RAW SEQUENCE LISTING

DATE: 04/23/2001

PATENT APPLICATION: US/09/828,000

TIME: 13:24:42

Input Set : A:\Vasostatin as Marrow Protectant.ST25.txt

Output Set: N:\CRF3\04232001\I828000.raw

3 <110> APPLICANT: Government of the United States of America
 5 <120> TITLE OF INVENTION: Vasostatin as Marrow Protectant
 7 <130> FILE REFERENCE: 4239-55414
 C--> 9 <140> CURRENT APPLICATION NUMBER: US/09/828,000
 C--> 9 <141> CURRENT FILING DATE: 2001-04-06
 9 <160> NUMBER OF SEQ ID NOS: 8
 11 <170> SOFTWARE: PatentIn version 3.0
 13 <210> SEQ ID NO: 1
 14 <211> LENGTH: 1251
 15 <212> TYPE: DNA
 16 <213> ORGANISM: Calreticulin
 18 <400> SEQUENCE: 1

19	atgctgctat	cctgtccgtt	gctgctcggc	ctcctcgcc	tggccgtcgc	cgagcctgcc	60
21	gtctacttca	aggagcagtt	tctggacgga	gacgggtgga	cttcccgtctg	gatcgaatcc	120
23	aaacacaagt	cagatttttg	caaattcggt	ctcagttccg	gcaagttcta	cggtgacgag	180
25	gagaaagata	aaggtttgca	gacaagccag	gatgcacgct	tttatgctct	gtcggccagt	240
27	ttcgagcctt	tcagcaacaa	aggccagacg	ctggtggtgc	agttcacggt	gaaacatgag	300
29	cagaacatcg	actgtggggg	cggtatgtg	aagctgtttc	ctaatagttt	ggaccagaca	360
31	gacatgcacg	gagactcaga	atacaacatc	atgtttggtc	ccgacatctg	tggccctggc	420
33	accaagaagg	ttcatgtcat	cttcaactac	aaggccaaga	acgtgctgat	caacaaggac	480
35	atccgttgca	aggatgatga	gtttacacac	ctgtacacac	tgattgtgcg	gccagacaac	540
37	acctatgagg	tgaagattga	caacagccag	gtggagtccg	gctccttgga	agacgattgg	600
39	gacttcctgc	caccaagaa	gataaaggat	cctgatgctt	caaaaccgga	agactgggat	660
41	gagcgggcca	agatcgatga	tcccacagac	tccaagcctg	aggactggga	caagcccag	720
43	catatccctg	accctgatgc	taagaagccc	gaggactggg	atgaagagat	ggacggagag	780
45	tgggaacccc	cagtgattca	gaaccctgag	tacaagggtg	agtgaagcc	ccggcagatc	840
47	gacaaccag	attacaaggg	cacttggtac	caccagaaa	ttgacaaccc	cgagtattct	900
49	cccgatccca	gtatctatgc	ctatgataac	tttggcgtgc	tgggcctgga	cctctggcag	960
51	gtcaagtctg	gcaccatctt	tgacaacttc	ctcatcacca	acgatgaggc	atacgctgag	1020
53	gagtttggca	acgagacgtg	ggcgtaaca	aaggcagcag	agaaacaaat	gaaggacaaa	1080
55	caggacgagg	agcagaggct	taaggaggag	gaagaagaca	agaaacgcaa	agaggaggag	1140
57	gaggcagagg	acaaggagga	tgatgaggac	aaagatgagg	atgaggagga	tgaggaggac	1200
59	aaggaggaag	atgaggagga	agatgtcccc	ggccaggcca	aggacgagct	g	1251

62 <210> SEQ ID NO: 2
 63 <211> LENGTH: 416
 64 <212> TYPE: PRT
 65 <213> ORGANISM: Calreticulin
 67 <400> SEQUENCE: 2

69	Met	Leu	Leu	Ser	Val	Pro	Leu	Leu	Leu	Gly	Leu	Leu	Gly	Leu	Ala	Val
70	1				5					10					15	
72	Ala	Glu	Pro	Ala	Val	Tyr	Phe	Lys	Glu	Gln	Phe	Leu	Asp	Gly	Asp	Gly
73				20					25					30		
75	Trp	Thr	Ser	Arg	Trp	Ile	Glu	Ser	Lys	His	Lys	Ser	Asp	Phe	Gly	Lys
76			35					40					45			
78	Phe	Val	Leu	Ser	Ser	Gly	Lys	Phe	Tyr	Gly	Asp	Glu	Glu	Lys	Asp	Lys
79		50					55				60					
81	Gly	Leu	Gln	Thr	Ser	Gln	Asp	Ala	Arg	Phe	Tyr	Ala	Leu	Ser	Ala	Ser

ENTERED

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82 65          70          75          80
84 Phe Glu Pro Phe Ser Asn Lys Gly Gln Thr Leu Val Val Gln Phe Thr
85          85          90          95
87 Val Lys His Glu Gln Asn Ile Asp Cys Gly Gly Gly Tyr Val Lys Leu
88          100          105          110
90 Phe Pro Asn Ser Leu Asp Gln Thr Asp Met His Gly Asp Ser Glu Tyr
91          115          120          125
93 Asn Ile Met Phe Gly Pro Asp Ile Cys Gly Pro Gly Thr Lys Lys Val
94          130          135          140
96 His Val Ile Phe Asn Tyr Lys Gly Lys Asn Val Leu Ile Asn Lys Asp
97 145          150          155          160
99 Ile Arg Cys Lys Asp Asp Glu Phe Thr His Leu Tyr Thr Leu Ile Val
100          165          170          175
102 Arg Pro Asp Asn Thr Tyr Glu Val Lys Ile Asp Asn Ser Gln Val Glu
103          180          185          190
105 Ser Gly Ser Leu Glu Asp Asp Trp Asp Phe Leu Pro Pro Lys Lys Ile
106          195          200          205
108 Lys Asp Pro Asp Ala Ser Lys Pro Glu Asp Trp Asp Glu Arg Ala Lys
109          210          215          220
111 Ile Asp Asp Pro Thr Asp Ser Lys Pro Glu Asp Trp Asp Lys Pro Glu
112 225          230          235          240
114 His Ile Pro Asp Pro Asp Ala Lys Lys Pro Glu Asp Trp Asp Glu Glu
115          245          250          255
117 Met Asp Gly Glu Trp Glu Pro Pro Val Ile Gln Asn Pro Glu Tyr Lys
118          260          265          270
120 Gly Glu Trp Lys Pro Arg Gln Ile Asp Asn Pro Asp Tyr Lys Gly Thr
121          275          280          285
123 Trp Ile His Pro Glu Ile Asp Asn Pro Glu Tyr Ser Pro Asp Pro Ser
124          290          295          300
126 Ile Tyr Ala Tyr Asp Asn Phe Gly Val Leu Gly Leu Asp Leu Trp Gln
127 305          310          315          320
129 Val Lys Ser Gly Thr Ile Phe Asp Asn Phe Leu Ile Thr Asn Asp Glu
130          325          330          335
132 Ala Tyr Ala Glu Glu Phe Gly Asn Glu Thr Trp Gly Val Thr Lys Ala
133          340          345          350
135 Ala Glu Lys Gln Met Lys Asp Lys Gln Asp Glu Glu Gln Arg Leu Lys
136          355          360          365
138 Glu Glu Glu Glu Asp Lys Lys Arg Lys Glu Glu Glu Glu Ala Glu Asp
139          370          375          380
141 Lys Glu Asp Asp Glu Asp Lys Asp Glu Asp Glu Glu Asp Glu Glu Asp
142 385          390          395          400
144 Lys Glu Glu Asp Glu Glu Glu Asp Val Pro Gly Gln Ala Lys Asp Glu
145          405          410          415
147 <210> SEQ ID NO: 3
148 <211> LENGTH: 180
149 <212> TYPE: PRT
150 <213> ORGANISM: Vasostatin
152 <400> SEQUENCE: 3
154 Glu Pro Ala Val Tyr Phe Lys Glu Gln Phe Leu Asp Gly Asp Gly Trp

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155 1          5          10          15
157 Thr Ser Arg Trp Ile Glu Ser Lys His Lys Ser Asp Phe Gly Lys Phe
158          20          25          30
160 Val Leu Ser Ser Gly Lys Phe Tyr Gly Asp Glu Glu Lys Asp Lys Gly
161          35          40          45
163 Leu Gln Thr Ser Gln Asp Ala Arg Phe Tyr Ala Leu Ser Ala Ser Phe
164          50          55          60
166 Glu Pro Phe Ser Asn Lys Gly Gln Thr Leu Val Val Gln Phe Thr Val
167 65          70          75          80
169 Lys His Glu Gln Asn Ile Asp Cys Gly Gly Gly Tyr Val Lys Leu Phe
170          85          90          95
172 Pro Asn Ser Leu Asp Gln Thr Asp Met His Gly Asp Ser Glu Tyr Asn
173          100          105          110
175 Ile Met Phe Gly Pro Asp Ile Cys Gly Pro Gly Thr Lys Lys Val His
176          115          120          125
178 Val Ile Phe Asn Tyr Lys Gly Lys Asn Val Leu Ile Asn Lys Asp Ile
179          130          135          140
181 Arg Cys Lys Asp Asp Glu Phe Thr His Leu Tyr Thr Leu Ile Val Arg
182 145          150          155          160
184 Pro Asp Asn Thr Tyr Glu Val Lys Ile Asp Asn Ser Gln Val Glu Ser
185          165          170          175
187 Gly Ser Leu Glu
188          180
190 <210> SEQ ID NO: 4
191 <211> LENGTH: 61
192 <212> TYPE: PRT
193 <213> ORGANISM: Fragment 1
195 <400> SEQUENCE: 4
197 Thr Asp Met His Gly Asp Ser Glu Tyr Asn Ile Met Phe Gly Pro Asp
198 1          5          10          15
200 Ile Cys Gly Pro Gly Thr Lys Lys Val His Val Ile Phe Asn Tyr Lys
201          20          25          30
203 Gly Lys Asn Val Leu Ile Asn Lys Asp Ile Arg Cys Lys Asp Asp Glu
204          35          40          45
206 Phe Thr His Leu Tyr Thr Leu Ile Val Arg Pro Asp Asn
207          50          55          60
209 <210> SEQ ID NO: 5
210 <211> LENGTH: 27
211 <212> TYPE: PRT
212 <213> ORGANISM: Fragment 2
214 <400> SEQUENCE: 5
216 Cys Gly Pro Gly Thr Lys Lys Val His Val Ile Phe Asn Tyr Lys Gly
217 1          5          10          15
219 Lys Asn Val Leu Ile Asn Lys Asp Ile Arg Cys
220          20          25
222 <210> SEQ ID NO: 6
223 <211> LENGTH: 18
224 <212> TYPE: PRT
225 <213> ORGANISM: Fragment 3

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227 <400> SEQUENCE: 6

229 Val Ile Phe Asn Tyr Lys Gly Lys Asn Val Leu Ile Asn Lys Asp Ile

230 1 5 10 15

232 Arg Cys

235 <210> SEQ ID NO: 7

236 <211> LENGTH: 35

237 <212> TYPE: PRT

238 <213> ORGANISM: Fragment 4

240 <400> SEQUENCE: 7

242 Val Ile Phe Asn Tyr Lys Gly Lys Asn Val Leu Ile Asn Lys Asp Ile

243 1 5 10 15

245 Arg Cys Lys Asp Asp Glu Phe Thr His Leu Tyr Thr Leu Ile Val Arg

246 20 25 30

248 Pro Asp Asn

249 35

251 <210> SEQ ID NO: 8

252 <211> LENGTH: 61

253 <212> TYPE: PRT

254 <213> ORGANISM: Fragment 5

256 <400> SEQUENCE: 8

258 Cys Gly Pro Gly Thr Lys Lys Val His Val Ile Phe Asn Tyr Lys Gly

259 1 5 10 15

261 Lys Asn Val Leu Ile Asn Lys Asp Ile Arg Cys Lys Asp Asp Glu Phe

262 20 25 30

264 Thr His Leu Tyr Thr Leu Ile Val Arg Pro Asp Asn Thr Tyr Glu Val

265 35 40 45

267 Lys Ile Asp Asn Ser Gln Val Glu Ser Gly Ser Leu Glu

268 50 55 60

VERIFICATION SUMMARY

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L:9 M:270 C: Current Application Number differs, Replaced Current Application No

L:9 M:271 C: Current Filing Date differs, Replaced Current Filing Date